

Fig. 1a

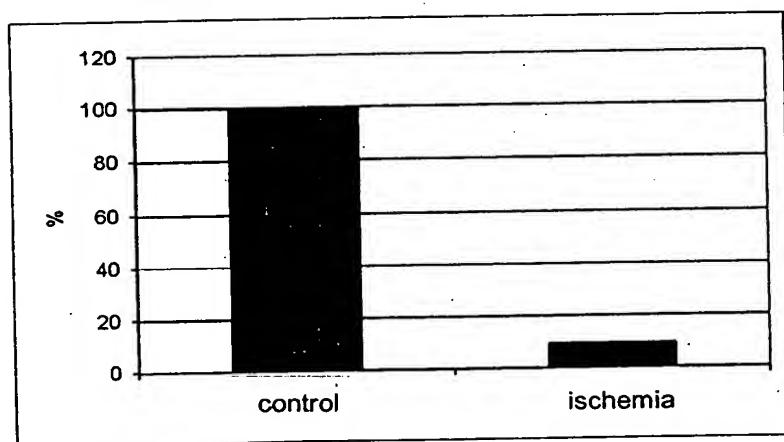


Fig. 1b

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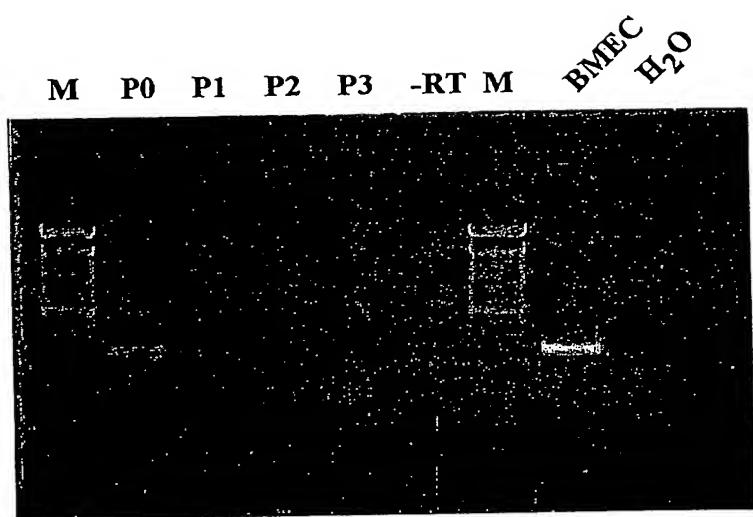


Fig. 2

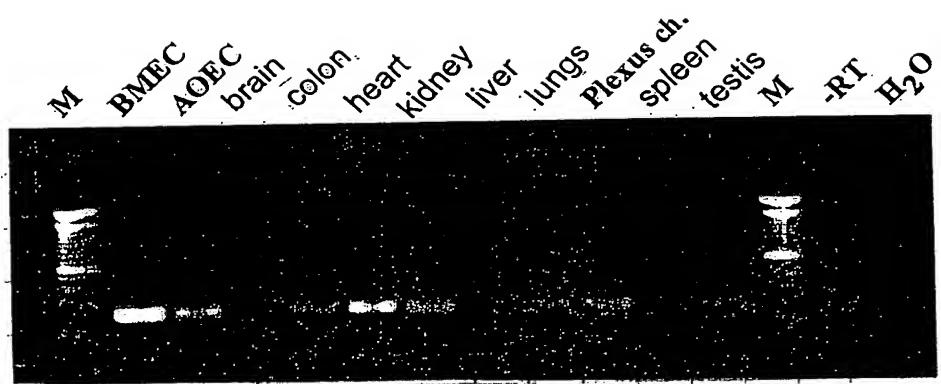


Fig. 3

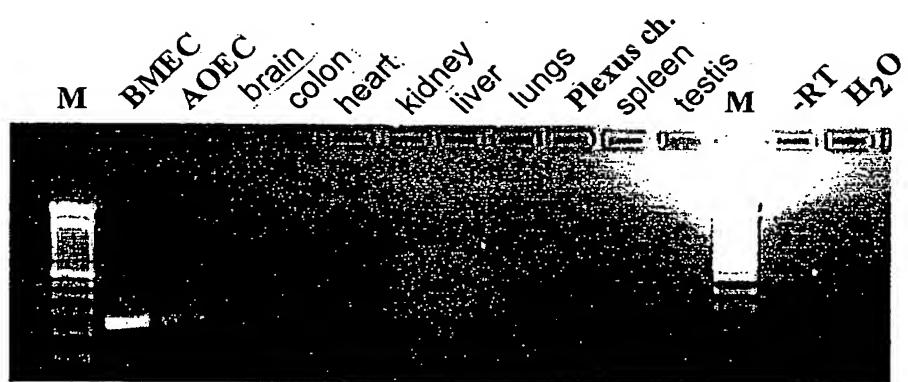


Fig. 4

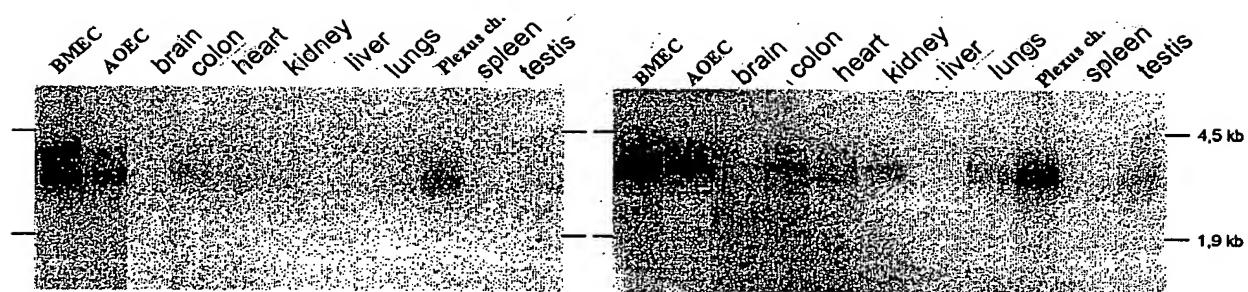


Fig. 5

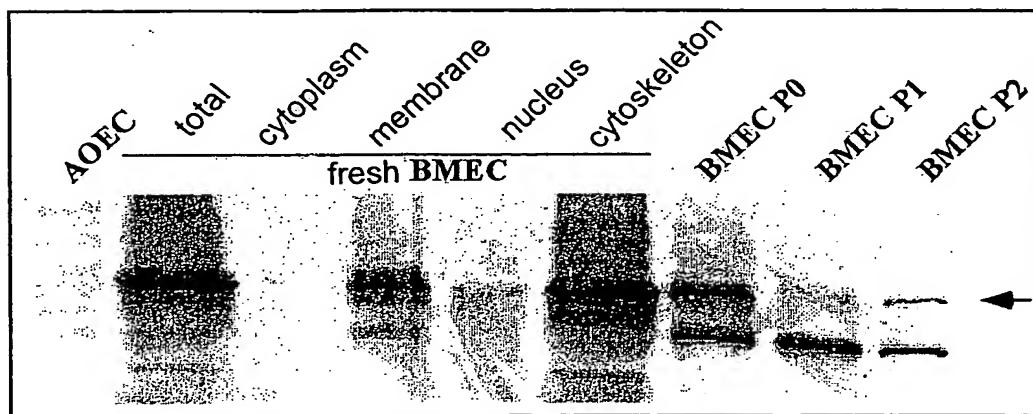


Fig. 6

Human pig mouse	MLVLLAGIFVVHIATVIMLFVSTIANWLVSNTVDASGLWKNCNTNISCSDSLSSYASEDA 60 MLVLLAGIFVVHIATVVMLFVCTIANVVVSDAGQGSVGLWKNCNTSAGCTDTLLYGGEDA 60 MLVLLAGLFLVVHIATAIMLFVSTIANVWMVADYANASVGLWKNCCTGGNCDGSSLSYGNEDA 60 *****:*****:*****:*****:*****:*****:*****:*****:*****:*****
Human pig mouse	LKTVQAFMILSIIIFCVIALLVVFVQLFTMEKGNNRFFLSGATTLVCWLCLILVGVSIVTSHY 120 LKS VQAFMILSIIIFSVVSLVVVFVQLFTMEKGNNRFFLSGATMLVCWLCLIMVGASVYTHHY 120 IKA VQAFMILSIIIFSIIISLVVVFVQLFTMEKGNNRFFLSGSTMVLCWLCLILVGVSIVTSHY 120 :*****:*****:*****:*****:*****:*****:*****:*****:*****:*****
Human pig mouse	ANRDGTQY---HHGYSYILGWICFCFSIIGVLYLVLRK 157 ANSSKNQYSASHHGYSFILAWICFCFSIIGVLYLVLRK 160 AHSEGNGFNSSSHQGYCFILT WICFCFSIIGI LYMLVRKK 160 *: . . . :***:***:*****:*****:*****:*****

Fig. 7

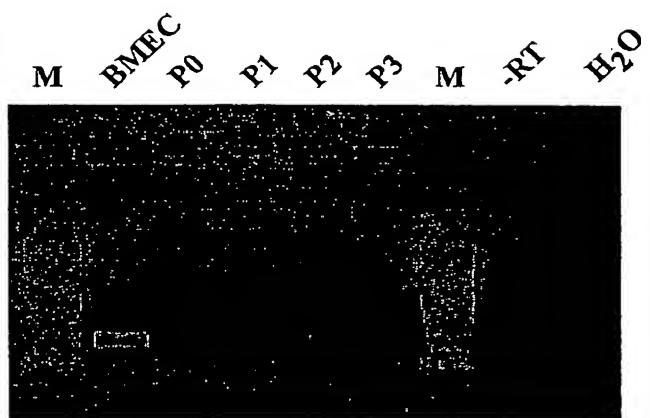


Fig. 8

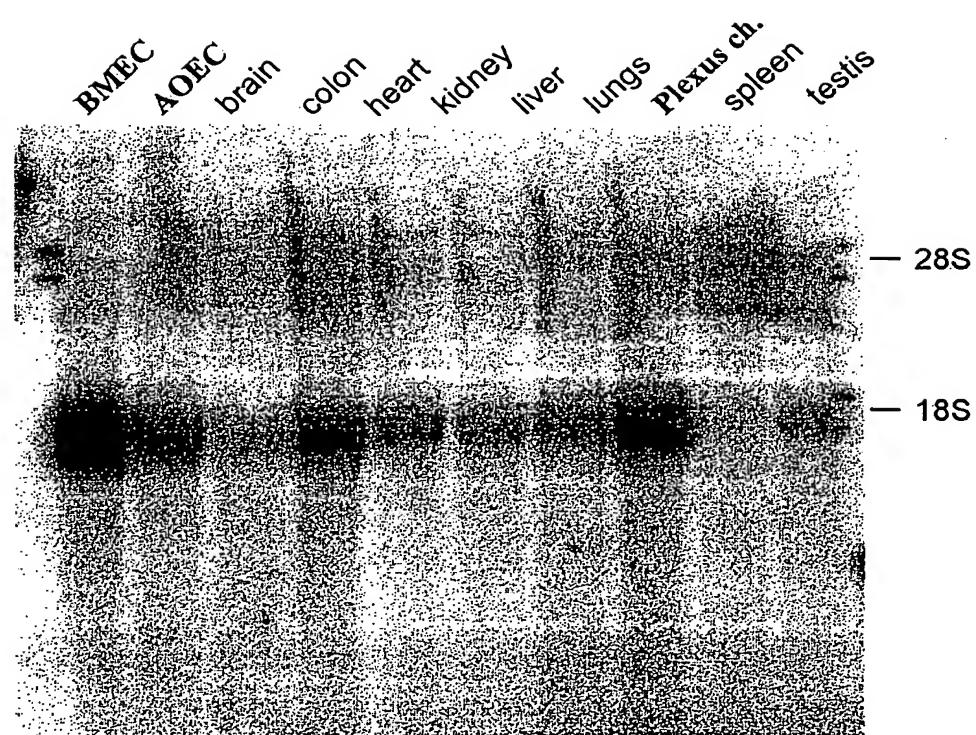


Fig. 9

human	M--AARTGHTALRRVVSGCRPKSATAAG----AQAPVRNGRYLASCGILMSRTLPLHTSI	54
pig	MFVAARTGQRTLKVVGCRPKSATATGVPAPAQGPPRNIRYLASCGILMNRTLPLHSSF	60
mouse	MIMAARTSQRALARVASGCHPKSTTVTEAP--ARGSARDVRHLAACGVLINRTLPPCAAV	58
	* * * * * : * : * . * * * : * * : * : * : * : * * * : * : * * * : * : * : * :	
human	LPKEICARTFFKITAPLINKRKEYSERRILGYSMQEMYDVS VSGVEDYKHFV PWCKKS DVI	114
pig	LPKEMYARTFFRIAPLINKRKEYSERRIIGYSMQEMYDVS VSGMEDYKHFV PWCKKS DVI	120
mouse	LPKEICARTFFRIASAPLVNKRKEYSERRILGYSMQEMYDVS VSGMEDYQHFV PWCKKS DII	118
	* * * * : * * * * : * : * * * * * * * * * : * * * * * * * * * * * * * * * * :	
human	SKRSGYCKTRLEIGFPV LERYTSVVT LVKPHLVKASCTDGRLFNHLETIWRFSPGLPGY	174
pig	SRRSGYCKTRLEIGFPV LERYTSVVT LVKPHLVKASCADGKL FNHLETVWRFSPGLPGY	180
mouse	SRRSGYCKTRLEVGFPPV LERYTSIVT LVKPHLVKASCTDGKL FNHLETIWRFSPGLPGY	178
	* : * * * * * * * * * : * * * * * * * * * : * * * * * * * * * : * * * * * * * * :	
human	PRTCTLDFSI SFEFRSLLHSQ LATLFFDEVVKQMVA AFERRACKLYGPETNIPRE LMLHE	234
pig	PRTCTLDFSI SFEFRSLLHSQ LATLFFDEVVKQMVA AFERRACKLYGPETSI PPRE LMLHE	240
mouse	PRTCTLDFSI SFEFRSLLHSQ LATLFFDEVVKQMVA AFERRACKLYGPETNIPRE LMLHE	238
	* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * :	
human	VHHT 238	
pig	VHHT 244	
mouse	IHHT 242	
	: * * *	

Fig. 10

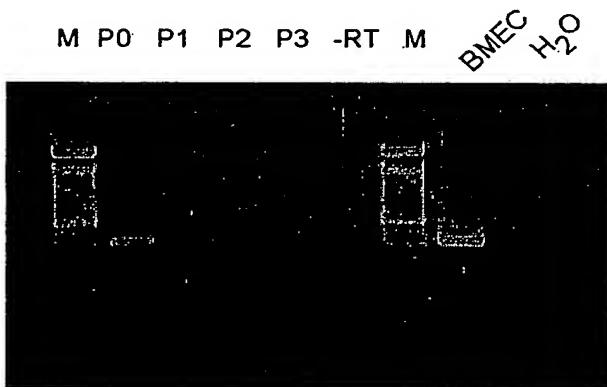


Fig. 11

MGNQVEKLTH	LSYKE <u>VPTAD</u>	<u>PTGVDRDDGP</u>	<u>RIGVSYIFSN</u>	DDEDVEPQPP
PQGPDGGLP	DGGDGPPPPQ	PQPYDPR <u>LHE</u>	<u>VECSVFYRDE</u>	<u>CIYQKSFAPG</u>
<u>SAALSTYTPE</u>	<u>NLLNKCKPGD</u>	LVEFVSQAQY	PHWAVYVGNF	QVVHLHRLEV
INSFLTDASQ	<u>GRRGRVVNDL</u>	<u>YRYKPLSSSA</u>	VVRNALAHVG	<u>AKERELSWRN</u>
<u>SESFAAWCRY</u>	GKREFKIGGE	<u>LRIGKQPYRL</u>	<u>QIQLSAQRSH</u>	<u>TLEFQSLEDL</u>
<u>IMEKRRNDQI</u>	GRAAVLQELA	THLHPAEPEE	GDSNVARTTP	PPGRPPAPSS
EEEDGEAVAH				

Fig. 12

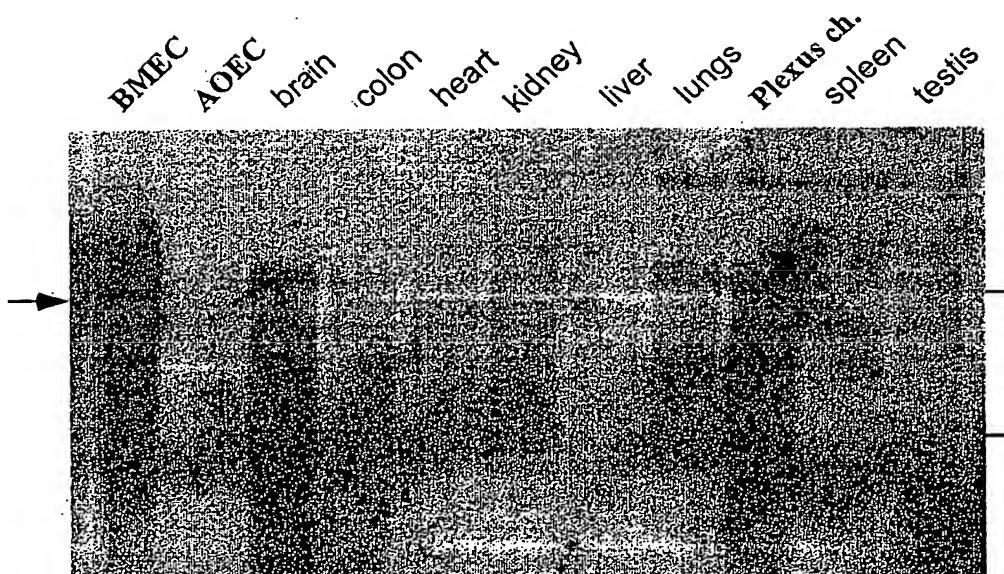


Fig. 13

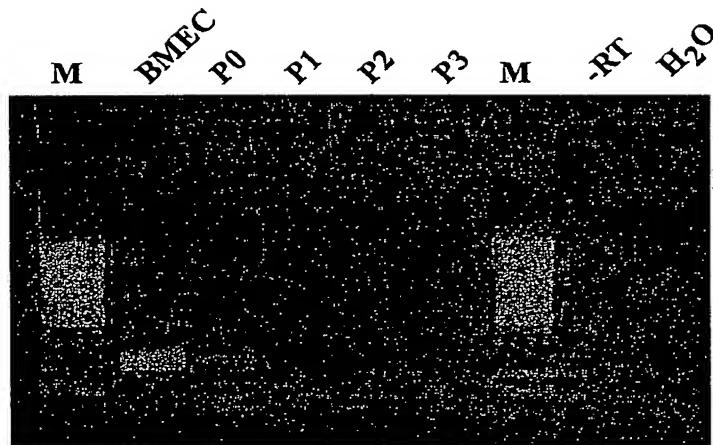


Fig. 14

NSE2	MGNQVEKLTHLSYKEVPTADPTGVDRDDGPRIGVSYIFSNDDDEVPEQPPPQGPQDGGGLP	60
NSE1	MGNQLDRITHLNSSELPTGDPGKIEKDE-LRVGVAYFSDDEEDLDERGQPDKFGVKAPP	59
*****:***.*.*:***.*:***: . *:***:***:***: : *: . . *		
NSE2	DGGDGPPPPQPQP---YDPRLHEVECSVFYRDECIFYQK-SFAPGSAALSTYT PENLLNK	115
NSE1	GCTPCPESPSRQHQLLHQQLVLINEQFSAFRGQECIFSKVSGGPQGADLSVYAVTALPAL	119
. * . * : : : *:.* : ***:.* * . * . * ***: * * . *		
NSE2	CKPGDLVEFVS-----QAQYPHWAVYVGNFQVVHLRLEVINSLFTDASQGRGRVVN	168
NSE1	CEPGDLLELLWLQPAPEPPAPAPAHWAVYVGGQIILHQGEIRQDSLYEAGAANVGRVVN	179
*:***:***: * *****. *:***: * : . * :. . ***		
NSE2	DLYRYKPLSSSAVRNALAHVGAKEREL3WRNSFAAWCRYGKREFKIGGELRIGKQP-	227
NSE1	SWYRYRPLVAELVVQNACGHGLKSEEICWTNSFAAWCRFGKREFKAGGEVPAGTQPP	239
. ***:*** :. ***:*** . :***:***:*****:***** ***: * .**		
NSE2	---YRLQIQLSAQRSHTLEFQSLEDLIMEKRRNDQIGRAAVLQELATHLHPAEEPEGDSN	284
NSE1	QQQYYLKVHLGENKVHTARFHSLEDIKEKRRIDASGRLRVLQELADLVDDKE-----	292
* :***:*. : : *** . *:***** * *** * * * :. *		
NSE2	VARTTPPPGRPPAPSSSEEDGEAVAH	310
NSE1	-----	

Fig. 15

MGNQVEKLTHLSYKEVPTADPTGVDRDDGPRIGVSYIFSNDDEDVEPQPP 50
 ----- ++++++
 PQGPDGGLPDGGDPPPPQQPYDPRLHEVECSVFYRDECIFYQKSFAPG 100
 ++++++
 SAALSTYTPENLLNKCKPGDLVEFVSQAQYPHWAVYVGNFQVVHLRLEV 150

 INSFLTDASQGRRGRVVNDLYRYKPLSSAVVRNALAHVGAKERELSWRN 200

 SESFAAWCRYGKREFKIGGELRIGKQPYRLQIQLSAQRSHTLEFQSLEDL 250

 IMEKRRNDQIGRAAVLQELATHLHPAEPEEGDSNVARTTPPPGRPPAPSS 300
 ++++++ ++++++
 EEEEDGEAVAH 310
 ++++++
 ++++++ possible PEST sequences
 ----- poor PEST sequences

Fig. 16

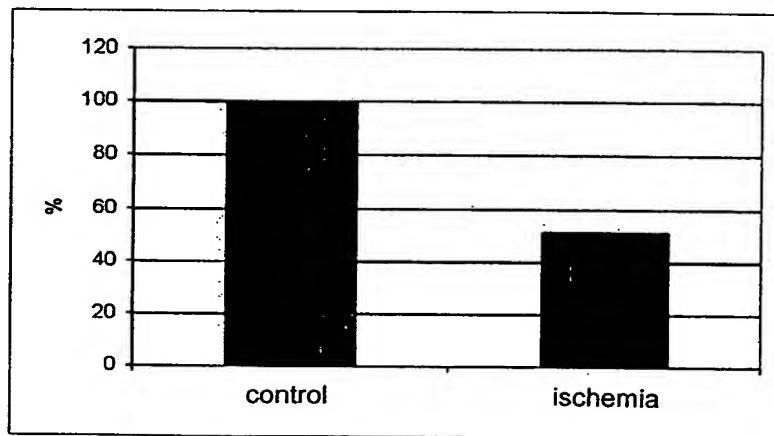


Fig. 17

MAALAPLPPPL PAQLK**SIQHH** **L**RTAQEHDKR DPVVAYYCRL**L** **YAMQTGMKID**
SKTPECRKFL **SK****LMDQLEAL** **KK**QLGDNEAI TQEIVGCAHL ENYALK**MFLY**
ADNEDRAGRF **HKNMIKSFYT** ASLLIDVITV FGELETDENVK HRKYARWKAT
 YIHNCNKNGE TPQAGPVGIE EDNDIEENED AGAASLPTQP TQPSSSTYD
 PSNMPSGNYT GIQIPPGAH A PANTPAEVPH STGVASNTIQ PTPQTIPAI
 PALFNTISQG DVRL**TPEDFA** **RAQKYCKYAG** SALQYEDVST AVQNLQKALK
LLTTGRE

Fig. 18

human	MAALAPLPPPLPAQLKSIQHHRTAQEHDKRDPVVAYYCRLYAMQTGMKIDS	KTPECRKFL 60
mouse	MAALAPLPPPLPAQFKSIQHHRTAQEHDKRDPVVAYYCRLYAMQTGMKIDS	KTPECRKFL 60
*****:*****:*****:*****:*****:*****:*****:*****:*****		
human	SKLMDQLEALKKQLGDNEAITQEIVGCAHLENYALKMFLYADNEDRAGRFHKNMIKSFYT	120
mouse	SKLMDQLEALKKQLGDNEAVTQEIVGCAHLENYALKMFLYADNEDRAGRFHKNMIKSFYT	120
*****:*****:*****:*****:*****:*****:*****:*****:*****		
human	ASLLIDVITVFGELTDENVKHRKYARWKATYIHNCNKNGETPQAGPVGIEEDNDIEENED	180
mouse	ASLLIDVITVFGELTDENVKHRKYARWKATYIHNCNKNGETPQAGPVGIEEENDVEENED	180
*****:*****:*****:*****:*****:*****:*****:*****:*****:*****		
human	AGAASLPTQPTQPSSSTYDPSNMPSGNYTGIQIPPGAHAPANTPAEVPHSTGVASNTIQ	240
mouse	VGATSLPTQPPQPSSSAYDPSNLAPGSYSGIIPPGAHAPANTPAEVPHSTGVTSNAVQ	240
.*****.*****:*****:*****:*****:*****:*****:*****:*****:*****		
human	PTPQTIP---AIDPALFNTISQGDVRLTPEDFARAQKYCKYAGSALQYEDVSTAVQNLQK	297
mouse	PSPQTVPAAAPAVDPDLY-TASQGDIRLTPEDFARAQKYCKYAGSALQYEDVGTAVQNLQK	299
*:*****:*****:*****:*****:*****:*****:*****:*****:*****		
human	ALKLLTTGRE 307	
mouse	ALRLLLTTGRE 309	
:**		

Fig. 19

11/19

10/527788

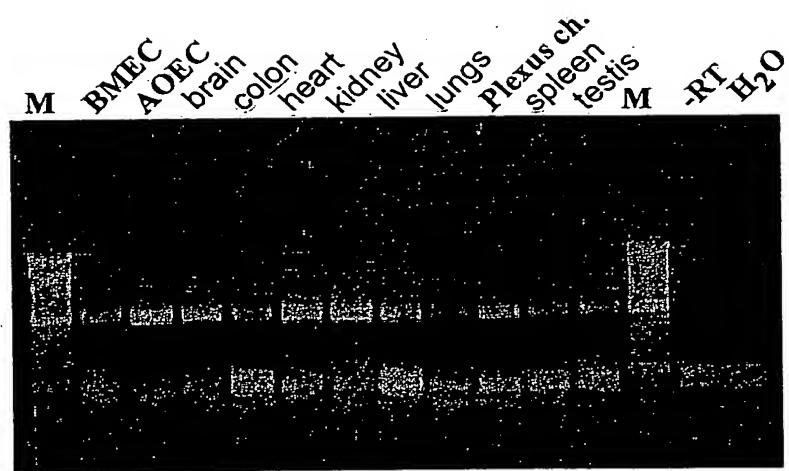


Fig. 20

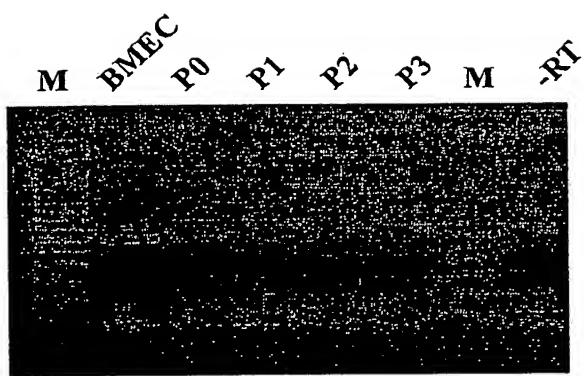


Fig. 21

MAAPEPLRPR	LCRLVRGEQG	YGFHLHGEKG	RRGQFIRRVE	PGSPAEEAAL
AGDRLVEVNG	VNVEGETHQ	VVQRIKAVEG	QTRILLVVDQE	TDEELRRRQL
TCTEEMAQRG	LPPAHDPWEP	KPDWAHTGSH	SSEAGKKDVS	GPLRELRPRL
CHLRKGPGY	GFLNLHSDKSR	PGQYIIRSVDP	GSPAARSGLR	AQDRLIEVNG
QNVEGLRHAE	VVASIKARED	EARLLVVDPE	TDEHFKRLRV	TPTEEHVEGP
LPSPTVNGTS	PAQLNGGSAC	SSRSDLPGSD	KDTEDEGSAWK	QDPFQESGLH
LSPTAAEARR	RLEPCESTSA	RHRWTGTGSV	KSSATSEPLP	ACLGTLGPLP
HGPWASACPE	LPQPQWTGGW	SCHCPEISPS	PGEPPSCPCP	PGTGGLWQQD
RGRETQRcer	ESETETERER	ERHRERQRES	ERARGSRGAR	AFAALPGPAD

Fig. 22

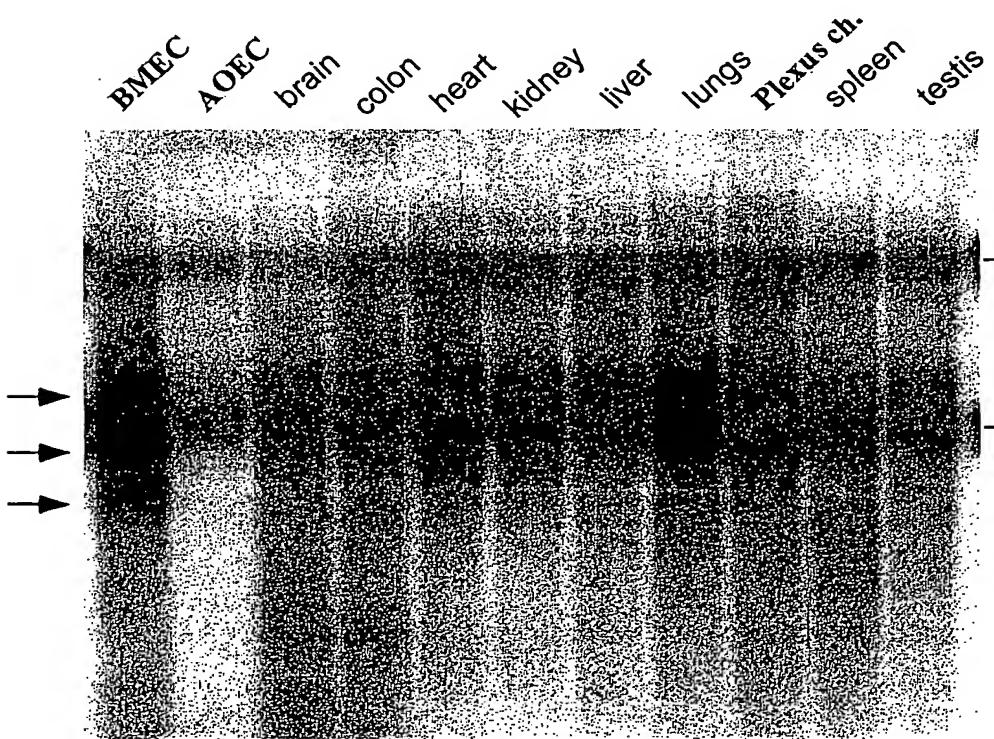


Fig. 23

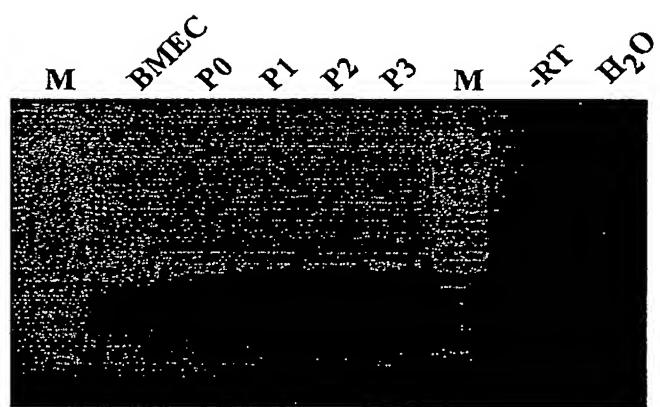


Fig. 24

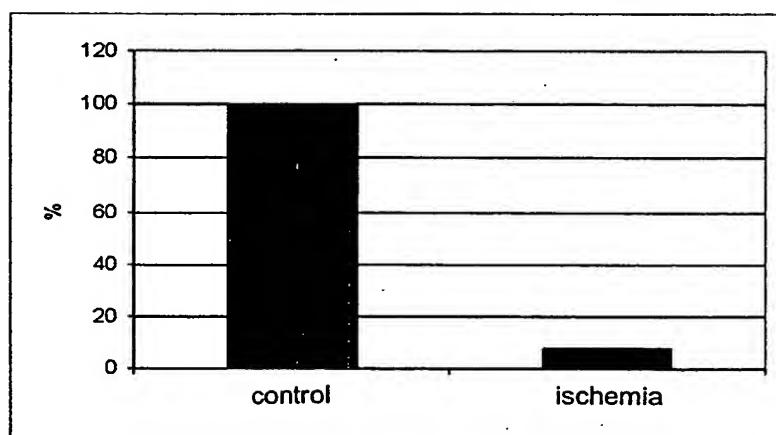


Fig. 25

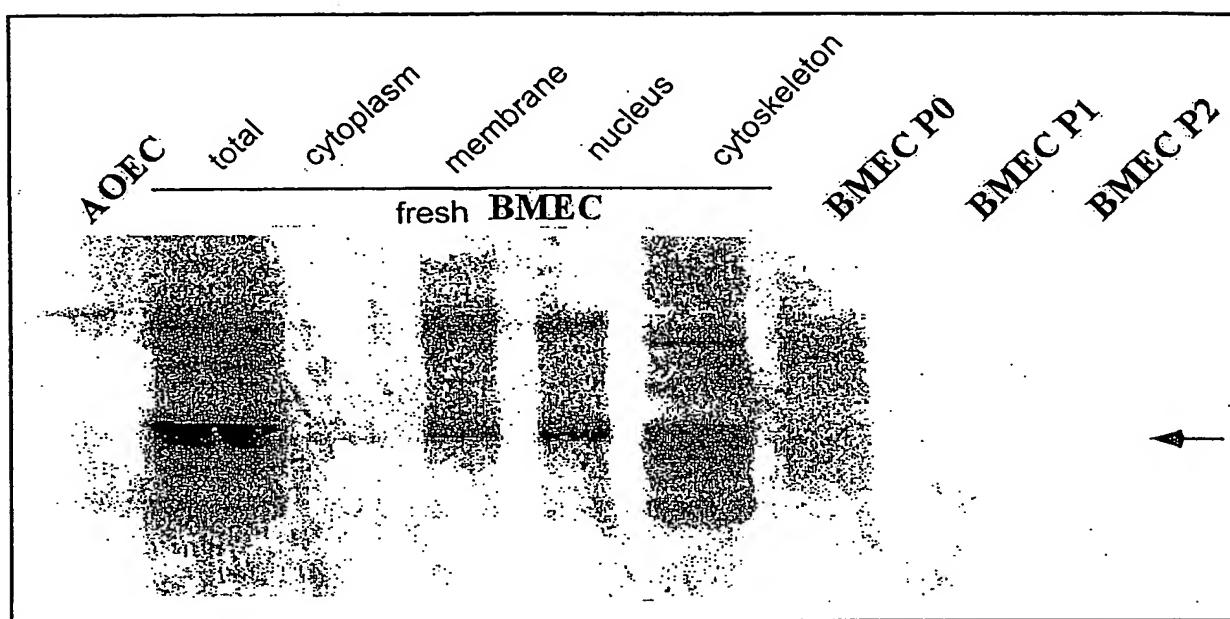


Fig. 26

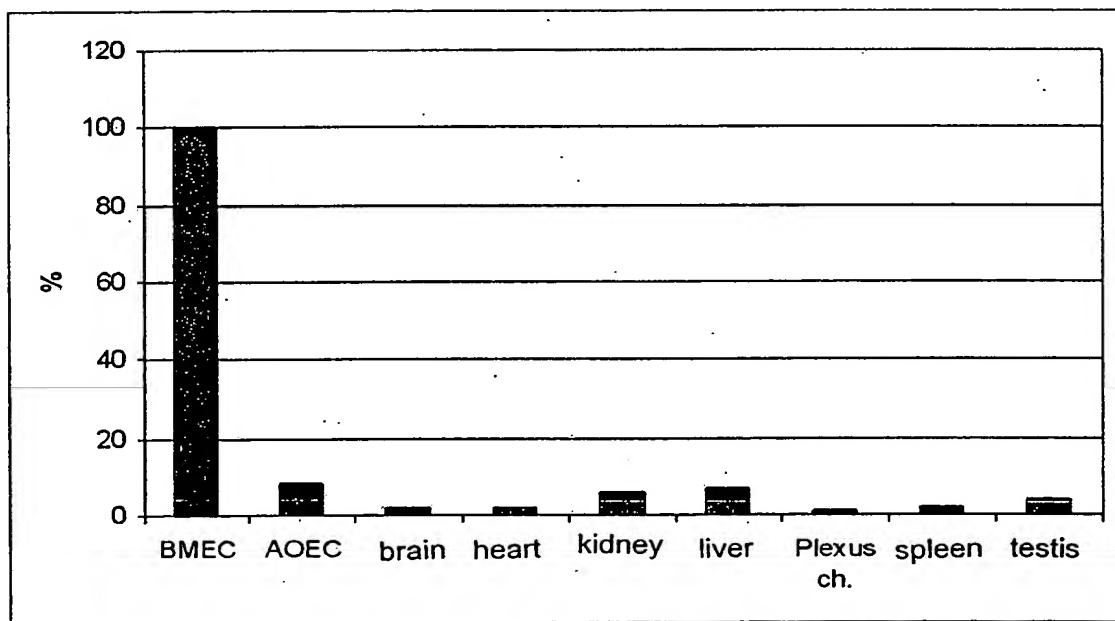


Fig. 27

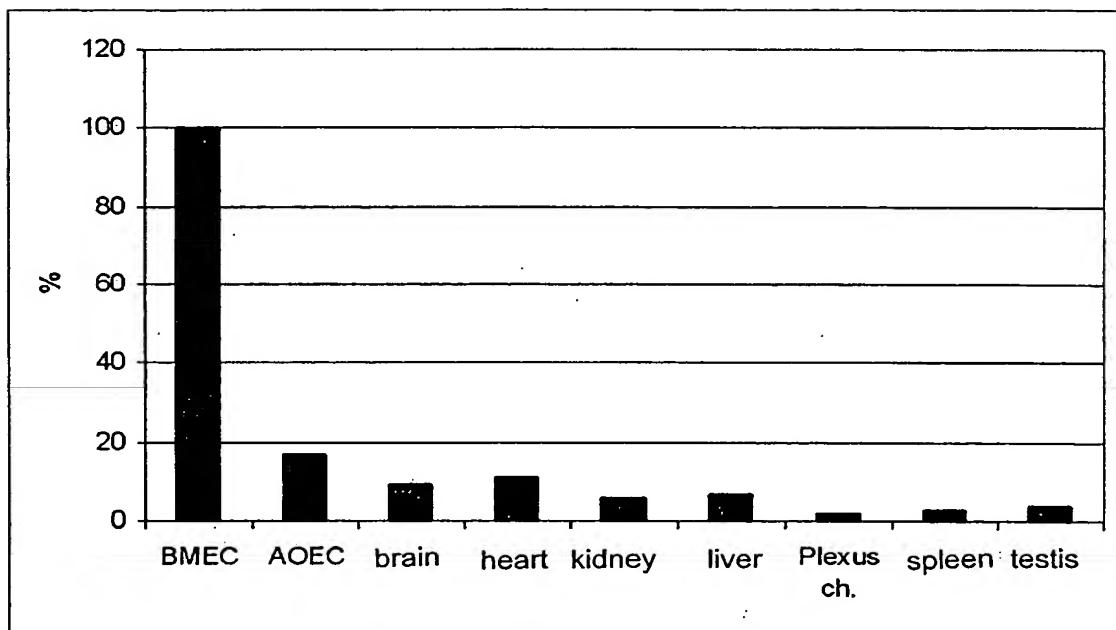


Fig. 28

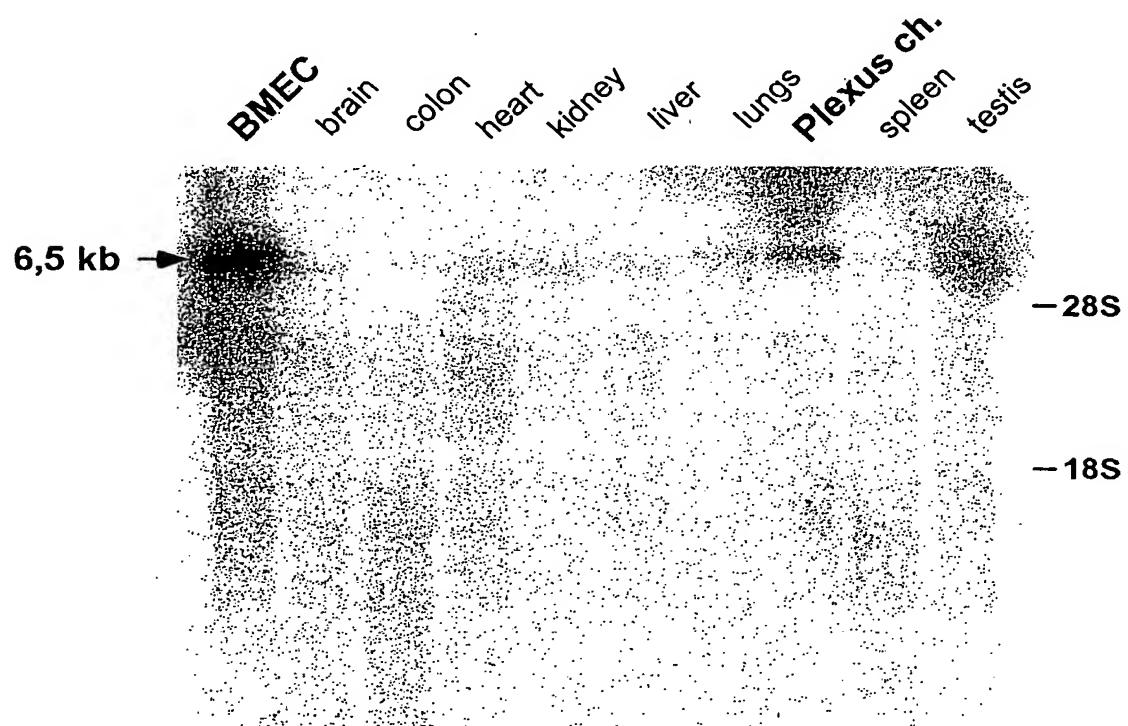


Fig. 29

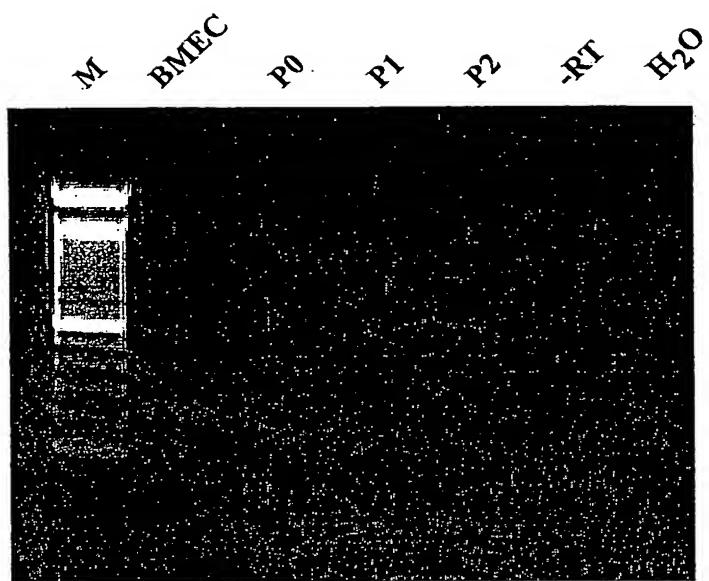


Fig. 30

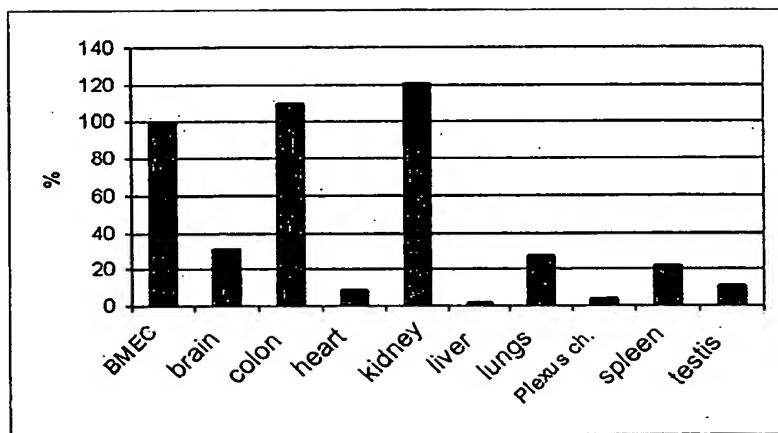


Fig. 31

HSNOV1: 48 MLSLCICGTAITSQYLAERYKVNTPMLQSFINYCLLFLIYTVMALFRSGSDNLLVILKRK 107
 MLSLCICGTAITSQYLAE+YKVNTPMLQSFINYCLLFLIYT+MLAF+SG++NLL ILK+K
 PNOV1: 1 MLSLCICGTAITSQYLAEKYKVNTPMLQSFINYCLLFLIYTMMMLAFQSGNNNLLCILKKK 60

 HSNOV1: 108 WWKYILLGLADVEANYVIVRAYQYTTLTSVQLLDCFGIPVLMALSWFILHARYRVIHFIA 167
 WWKYILLGLADVEANY+IVRAYQYTTLTSVQLLDCFGIPVLMALSWFIL+ARYRVIHFIA
 PNOV1: 61 WWKYILLGLADVEANYLIVRAYQYTTLTSVQLLDCFGIPVLMALSWFILYARYRVIHFIA 120

 HSNOV1: 168 VAVCLLGVGTMVGADILAGREDNSGSDVLI^GDILVLLGASLYAISNVCEEYIVKKLSRQE 227
 VAVCLLGVGTMVGADILAGREDNSGSDVLI^GD+LVLLGASLYA+SNVCEEYIVKKLSRQE
 PNOV1: 121 VAVCLLGVGTMVGADILAGREDNSGSDVLI^GDVLVLLGASLYAVSNVCEEYIVKKLSRQE 180

 HSNOV1: 228 FLGMVGLFGTIISGQLLIVEYKDIASIHWWDWKIALLFVAFALCMFCLYSFMP^LVIKVTS 287
 FLGMVGLFGTIISGQLLIVEYKDIASIHWWDWKIALLFVAFALCMFCLYSFMP^LVIKVTS
 PNOV1: 181 FLGMVGLFGTIISGQLLIVEYKDIASIHWWDWKIALLFVAFALCMFCLYSFMP^LVIKVTS 240

 HSNOV1: 288 ATSVNLGILTADLYSLFVGLFLFGYKFSGLYILSFTVIMVGFILYCSTPTRTAEPAESSV 347
 ATSVNLGILTADLYSLF GLFLFGYKFSGLYILSF VIMVGFILYCSTPTRTAEPAESSV
 PNOV1: 241 ATSVNLGILTADLYSLFFGLFLFGYKFSGLYILSFAVIMVGFILYCSTPTRTAEPAESSV 300

 HSNOV1: 348 -PPVTSIGIDNLGLKLEENLQETHSAVL 374
 PPVTSIGIDNLGLKLEENL ETHS L
 PNOV1: 301 PPPVTSIGIDNLGLKLEENLPETHSVAL 328

Fig. 32

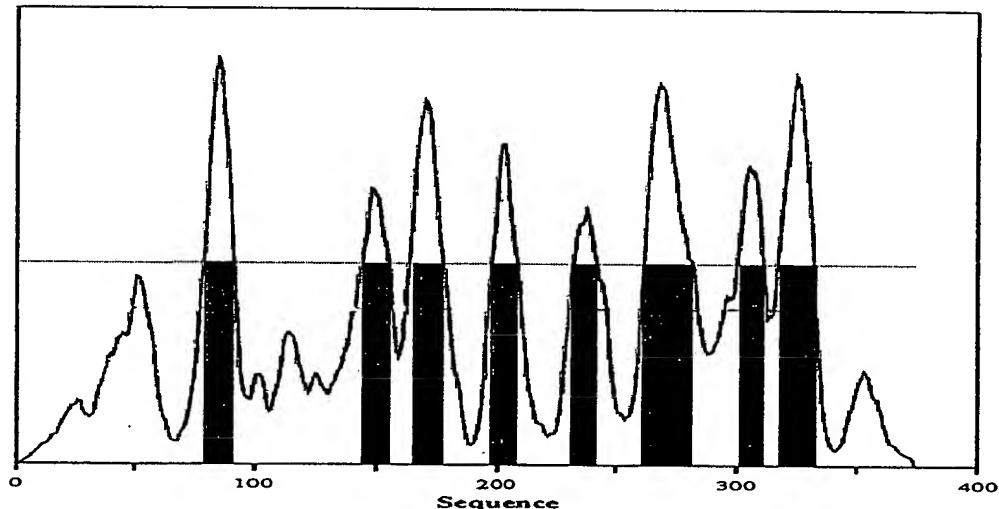


Fig. 33

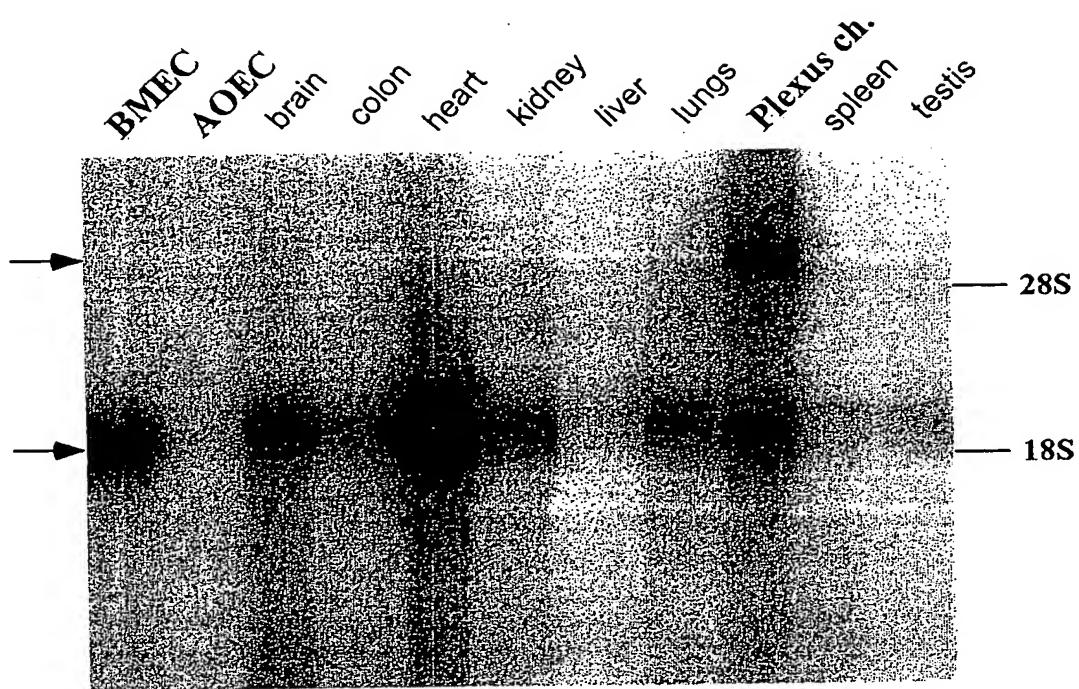


Fig. 34

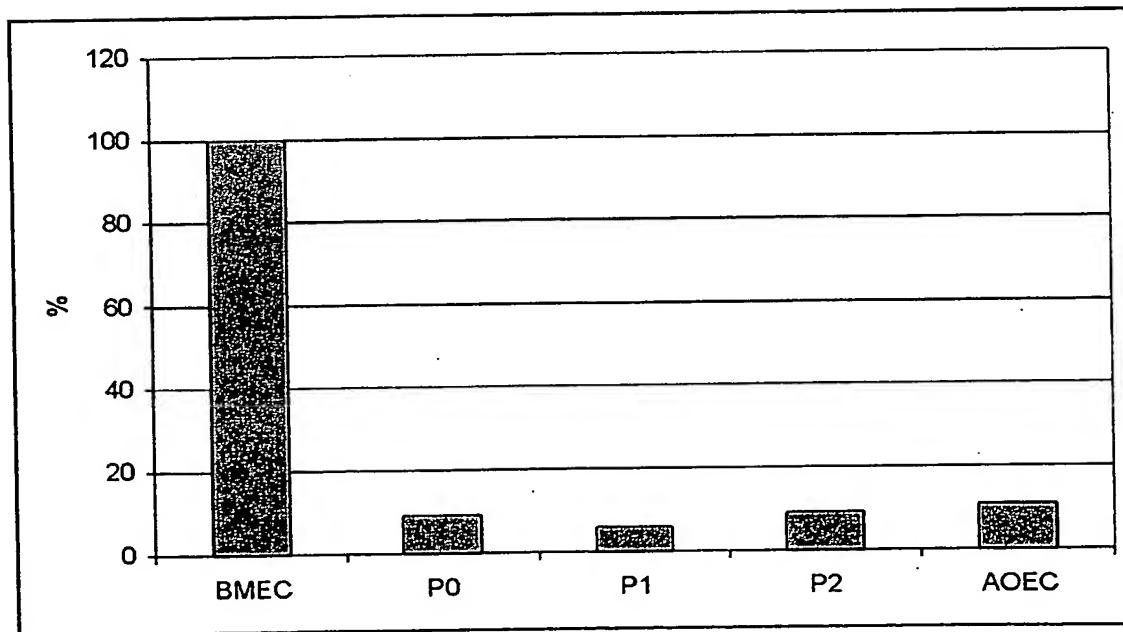


Fig. 35

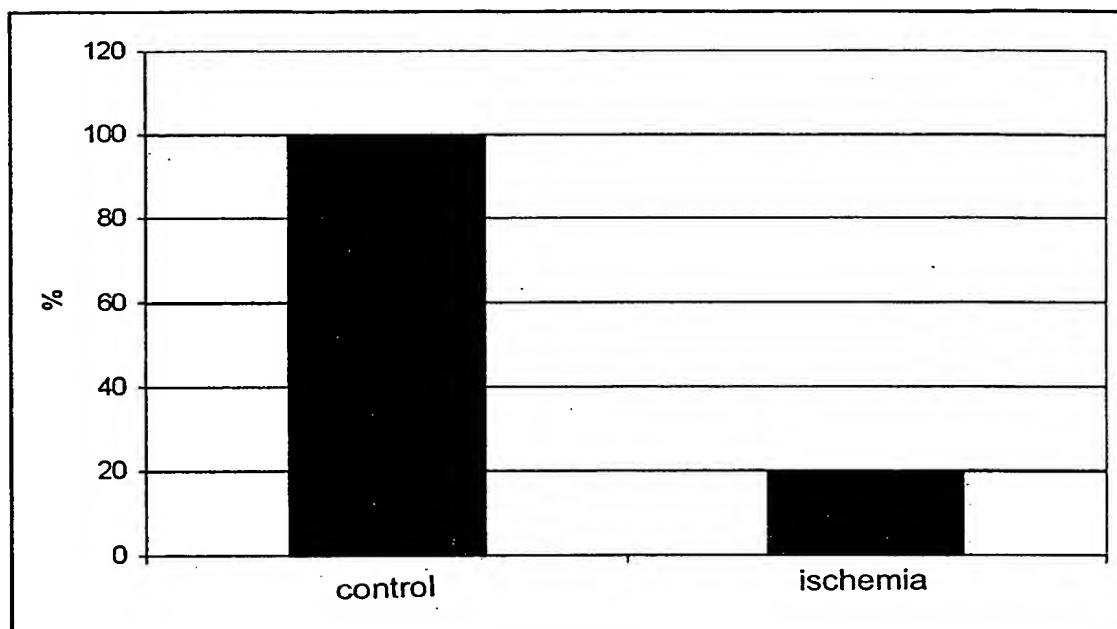


Fig. 36

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